Title: Determiation of correlation between zinc level in cerebrospinal fluid and kinds of febrile convulsion.

Abstract:

Background and Obiectives: Febrile seizures are the most common convulsive disorder of the childhood which occurs in children between 6 months and 6 years of age.

Its etiologic cause in not clear and numerous studies have proposed several causes.

Accurate information about its pathophysiology and etiology as well as factors affecting type and severity of the disease is invaluable.

Material & Method: Our study was performed on 26 children who were treated with diagnosis of febrile seizure.

All the patients who entered the study had an indication for lumbar puncture; they were hospitalized and underwent lumbar puncture in Bu Ali Hospital, Ardebil- Iran.

0.2-0.5ml of each sample was separated, frozen and kept for analysis.

After collection of samples, Level of zinc in each sample were calculated by "atomic absorption spectrophotometer" and statistical analysis was performed.

Results: The mean level of zine in all CSF Samples in our study was 2.0056 ± 0.5572 [µg/dl]. Mean levels of zinc in boys and girls were 2.0994 ± 0.6120 and 1.8284 ± 0.4090 [µg/dl], respectively. Mean levels of zinc in simple and complex febrile seizures were 2.1081 ± 0.5655 and 1.575 ± 0.2339 [µg/dl], respectively.

P-Value for relationship between patients sex and zinc levels of CSF was 0.19. P-Value for relationship between type of F.C and zine levels of CSF was 0.01 .

Conclusion: This study showed that level of zine in CSF is higher in simple F.C than in Complex F.C Furthermore, there was no relationship between patient's sex zinc levels of CSF In febrile seizure.

Keywords: zine, Simple febrile convulsion, Complex febrile convulsion, Cerebrospinal fluid, Atomic Absorption Spectrophotometer.